=> fil reg

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STRUCTURE FILE UPDATES: 24 SEP 2006 HIGHEST RN 908332-13-8 DICTIONARY FILE UPDATES: 24 SEP 2006 HIGHEST RN 908332-13-8

New CAS Information Use Policies, enter HELP USAGETERMS for details.

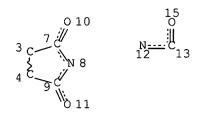
TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

=> => d sta que 139 L11 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES: RSPEC 4 NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE L12 SCR 2043 L15 STR

3 C 7 N 8 4 C 9 N 11

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NODE ATTRIBUTES:
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DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

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RSPEC 4

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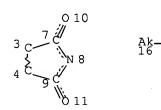
L19 1066 SEA FILE=REGISTRY SUB=L17 SSS FUL L11

L20 476 SEA FILE=REGISTRY ABB=ON PLU=ON L19 AND (C2H4O OR C3H6O OR

C4H8O OR C5H10O)

L21 114 SEA FILE=REGISTRY ABB=ON PLU=ON L20 AND S/ELS

L26 STR



NODE ATTRIBUTES:

CONNECT IS M3 RC AT 8

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS M3 C AT 16

GRAPH ATTRIBUTES:

RSPEC 8

NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE

L28 420 SEA FILE=REGISTRY SUB=L19 SSS FUL L26

L38 222 SEA FILE=REGISTRY ABB=ON PLU=ON L28 AND L20

L39 62 SEA FILE=REGISTRY ABB=ON PLU=ON L21 AND L38

=> d his

(FILE 'HOME' ENTERED AT 13:44:12 ON 25 SEP 2006) SET COST OFF

FILE 'HCAPLUS' ENTERED AT 13:44:33 ON 25 SEP 2006

L1 2 S (US20060009590 OR US20040204548)/PN OR (US2005-091024# OR US2

E KOZLOWSKI/AU

L2 162 S E4-E7, E19, E21, E22

E GROSS/AU

L3 9 S E3

E GROSS R/AU

L4 481 S E3,E11

L5 5 S E51, E52

E MCMANUS/AU

E MCMANUS S/AU

L6 138 S E3, E5-E9

E MC MANUS/AU

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E NEKTAR/PA,CS
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L7
             2 S L1 AND L2-L7
L8
               SEL RN
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L9
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L10
            29 S L9 AND NC4/ES
L11
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L12
              SCR 2043
L13
            50 S L11 AND L12 SAM
L14
              STR L11
L15
              STR L11
L16
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       16423 S L15 AND L12 FUL
L17
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L18
            50 S L11 SAM SUB=L17
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         1066 S L11 FUL SUB=L17
               SAV TEMP L19 RAB751A/A
L20
          476 S L19 AND (C2H4O OR C3H6O OR C4H8O OR C5H10O)
L21
           114 S L20 AND S/ELS
L22
              STR L11
L23
             4 S L22 SAM SUB=L19
L24
              STR L22
L25
           43 S L24 SAM SUB=L19
L26
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L27
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L28
           420 S L26 FUL SUB=L19
              SAV L28 TEMP RAB751B/A
L29
               STR L26
L30
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L31
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              SAV TEMP L31 RAB751C/A
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            31 S L22 FUL SUB=L19
              SAV TEMP L32 RAB751D/A
L33
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L34
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L35
           14 S L32 NOT L34
L36
           3 S L35 AND 1/NC
L37
            2 S L36 NOT 249621-30-5
L38
         222 S L28 AND L20
          62 S L21 AND L38
L39
            1 S L39 AND "(C2H4O)NC18H32N2O8S"/MF
L40
L41
          160 S L38 NOT L39
L42
           20 S L10 AND L19
L43
            4 S L42 AND L28
L44
            1 S L42 AND L31
L45
            0 S L42 AND L32
L46
            19 S L42-L44 NOT L40
L47
            1 S L46 AND "(C2H4O)NC16H26N2O7"/MF
L48
            10 S L46 AND 46.150.1/RID
              SEL RN 9 10
L49
            8 S L48 NOT E56-E57
L50
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L51
            10 S L42 NOT L50
               SAV TEMP L51 RAB751E/A
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FILE 'HCAOLD' ENTERED AT 14:42:38 ON 25 SEP 2006

FILE 'HCAPLUS' ENTERED AT 14:42:41 ON 25 SEP 2006

FILE 'USPATFULL' ENTERED AT 14:46:12 ON 25 SEP 2006

FILE 'REGISTRY' ENTERED AT 14:46:51 ON 25 SEP 2006

FILE 'HCAOLD' ENTERED AT 14:47:31 ON 25 SEP 2006 L52 0 S L50

FILE 'HCAPLUS' ENTERED AT 14:47:31 ON 25 SEP 2006

L53 2 S L50

L54 2 S L53 AND L1-L8

FILE 'USPATFULL' ENTERED AT 14:48:04 ON 25 SEP 2006 L55 2 S L50

FILE 'REGISTRY' ENTERED AT 14:48:12 ON 25 SEP 2006

=> d ide can tot 150

L50 ANSWER 1 OF 10 REGISTRY COPYRIGHT 2006 ACS on STN

RN **724722-86-5** REGISTRY

ED Entered STN: 10 Aug 2004

CN Poly(oxy-1,2-ethanediyl), α -[3-[[3-[[3-[(2-hydroxyethyl)thio]-2,5-dioxo-1-pyrrolidinyl]methyl]cyclohexyl]methyl]amino]-3-oxopropyl]- ω -methoxy- (9CI) (CA INDEX NAME)

MF (C2 H4 O)n C18 H30 N2 O5 S

CI PMS

PCT Polyether

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:140951

L50 ANSWER 2 OF 10 REGISTRY COPYRIGHT 2006 ACS on STN

RN **724722-83-2** REGISTRY

ED Entered STN: 10 Aug 2004

CN Poly(oxy-1,2-ethanediyl), α -[3-[[(trans)-4-[3-[(2-hydroxyethyl)thio]-2,5-dioxo-1-pyrrolidinyl]cyclohexyl]amino]-3-oxopropyl]- ω -methoxy-(9CI) (CA INDEX NAME)

MF (C2 H4 O)n C16 H26 N2 O5 S

CI PMS

PCT Polyether

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

MeO
$$CH_2-CH_2-O$$
 n $CH_2-CH_2-CH_2-O$ NH O $S-CH_2-CH_2-OH$

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:140951

L50 ANSWER 3 OF 10 REGISTRY COPYRIGHT 2006 ACS on STN

RN **724722-80-9** REGISTRY

ED Entered STN: 10 Aug 2004

CN Poly(oxy-1,2-ethanediyl), α -[3-[[[(trans)-4-[3-[(2-hydroxyethyl)thio]-2,5-dioxo-1-pyrrolidinyl]cyclohexyl]methyl]amino]-3-oxopropyl]- ω -methoxy- (9CI) (CA INDEX NAME)

MF (C2 H4 O)n C17 H28 N2 O5 S

CI PMS

PCT Polyether

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

MeO
$$CH_2$$
 CH_2 $CH_$

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:140951

L50 ANSWER 4 OF 10 REGISTRY COPYRIGHT 2006 ACS on STN

RN **724722-77-4** REGISTRY

ED Entered STN: 10 Aug 2004

CN Poly(oxy-1,2-ethanediyl), α -[3-[[[4-[[3-[(2-hydroxyethyl)thio]-2,5-dioxo-1-pyrrolidinyl]methyl]cyclohexyl]methyl]amino]-3-oxopropyl]- ω -

methoxy- (9CI) (CA INDEX NAME)

MF (C2 H4 O)n C18 H30 N2 O5 S

CI PMS

PCT Polyether

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:140951

L50 ANSWER 5 OF 10 REGISTRY COPYRIGHT 2006 ACS on STN

RN **724722-75-2** REGISTRY

ED Entered STN: 10 Aug 2004

CN Poly(oxy-1,2-ethanediyl), α -[3-[[[3-[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]cyclohexyl]methyl]amino]-3-oxopropyl]- ω -methoxy-(9CI) (CA INDEX NAME)

MF (C2 H4 O)n C16 H24 N2 O4

CI PMS

PCT Polyether

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

2 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 144:129719

REFERENCE 2: 141:140951

L50 ANSWER 6 OF 10 REGISTRY COPYRIGHT 2006 ACS on STN

RN 724722-68-3 REGISTRY

EDEntered STN: 10 Aug 2004

CN Poly(oxy-1,2-ethanediyl), α -[3-[[(trans)-4-(2,5-dihydro-2,5-dioxo-1Hpyrrol-1-yl)cyclohexyl]amino]-3-oxopropyl]-ω-methoxy- (9CI) (CA INDEX NAME)

(C2 H4 O)n C14 H20 N2 O4 MF

CI PMS

PCT Polyether

SR CA

LCSTN Files: CA, CAPLUS, USPATFULL

$$MeO = \begin{bmatrix} CH_2 - CH_2 - O \\ \end{bmatrix}_n CH_2 - CH_2 - C - NH$$

2 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 144:129719

REFERENCE 2: 141:140951

L50 ANSWER 7 OF 10 REGISTRY COPYRIGHT 2006 ACS on STN

RN 724722-58-1 REGISTRY

ED Entered STN: 10 Aug 2004

CN Poly($\alpha xy-1$, 2-ethanediyl), α -[3-[[(trans)-4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)cyclohexyl]methyl]amino]-3-oxopropyl]- ω -methoxy-(9CI) (CA INDEX NAME)

MF (C2 H4 O)n C15 H22 N2 O4

CI PMS

PCT Polyether

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

2 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 144:129719

REFERENCE 2: 141:140951

L50 ANSWER 8 OF 10 REGISTRY COPYRIGHT 2006 ACS on STN

RN **724722-47-8** REGISTRY

ED Entered STN: 10 Aug 2004

CN Poly(oxy-1,2-ethanediyl), α -[3-[[[4-[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]cyclohexyl]methyl]amino]-3-oxopropyl]- ω -methoxy-(9CI) (CA INDEX NAME)

MF (C2 H4 O)n C16 H24 N2 O4

CI PMS

PCT Polyether

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

MeO
$$CH_2-CH_2-O$$
 $CH_2-CH_2-CH_2-CH_2-CH_2$ CH_2 CH_2

2 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 144:129719

REFERENCE 2: 141:140951

L50 ANSWER 9 OF 10 REGISTRY COPYRIGHT 2006 ACS on STN

RN 724722-30-9 REGISTRY

ED Entered STN: 10 Aug 2004

CN Poly(oxy-1,2-ethanediyl), α -[15-[3-[(2-hydroxyethyl)thio]-2,5-dioxo-1-pyrrolidinyl]-1-oxo-6,9,12-trioxa-2-azapentadec-1-yl]- ω -methoxy-(9CI) (CA INDEX NAME)

MF (C2 H4 O)n C18 H32 N2 O8 S

CI PMS

PCT Polyether

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

PAGE 1-A

PAGE 1-B

 $-CH_2$ OMe

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:140951

L50 ANSWER 10 OF 10 REGISTRY COPYRIGHT 2006 ACS on STN

RN **724722-20-7** REGISTRY

ED Entered STN: 10 Aug 2004

CN Poly(oxy-1,2-ethanediyl), α -[15-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxo-6,9,12-trioxa-2-azapentadec-1-yl]- ω -methoxy- (9CI) (CA INDEX NAME)

MF (C2 H4 O)n C16 H26 N2 O7

CI PMS

PCT Polyether

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

PAGE 1-B

$$-CH_2 - n$$
 OMe

2 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 144:129719

REFERENCE 2: 141:140951

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FILE COVERS 1907 - 25 Sep 2006 VOL 145 ISS 14 FILE LAST UPDATED: 24 Sep 2006 (20060924/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d bib abs hitstr retable tot 154

L54 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2006:37101 HCAPLUS Full-text

DN 144:129719

TI Hydrolytically stable maleimide-terminated polymers

IN Kozlowski, Antoni; Gross, Remy F., III; McManus, Samuel P.

PA USA

SO U.S. Pat. Appl. Publ., 47 pp., Cont.-in-part of U.S. Ser. No. 751,274. CODEN: USXXCO

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE			
PI	US 2006009590	A1	20060112	US 2005-91024	20050325 <			
	US 2004204548	A1	20041014	US 2003-751274	20031231 <			
PRAI	US 2002-437211P	P	20021231	<				
	US 2003-751274	A2	20031231	<				

OS MARPAT 144:129719

AB The present invention is directed to hydrolytically stabilized maleimidefunctionalized water soluble polymers (e.g., polyethylene glycol derivs.) and to methods for making and utilizing such polymers and their precursors.

TT 724722-20-7DP, conjugate with 2-mercaptoethanol 724722-20-7P 724722-47-8DP, conjugate with 2-mercaptoethanol 724722-48P 724722-58-1DP, conjugate with 2-mercaptoethanol 724722-58-1P 724722-68-3DP, conjugate with 2-mercaptoethanol 724722-75-2DP, conjugate with 2-mercaptoethanol 724722-75-2P

RL: IMF (Industrial manufacture); PREP (Preparation) (hydrolytically stable maleimide-terminated polymers)

RN 724722-20-7 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -[15-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxo-6,9,12-trioxa-2-azapentadec-1-yl]- ω -methoxy- (9CI) (CA INDEX NAME)

PAGE 1-B

$$-CH_2$$
 OMe

RN 724722-20-7 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -[15-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxo-6,9,12-trioxa-2-azapentadec-1-yl]- ω -methoxy- (9CI) (CA INDEX NAME)

PAGE 1-B

$$-CH_2$$
 OMe

RN 724722-47-8 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -[3-[[[4-[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]cyclohexyl]methyl]amino]-3-oxopropyl]- ω -methoxy-(9CI) (CA INDEX NAME)

MeO—
$$\begin{bmatrix} CH_2-CH_2-O \end{bmatrix}_n$$
 $CH_2-CH_2-C-NH-CH_2$ CH_2

RN 724722-47-8 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -[3-[[[4-[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]cyclohexyl]methyl]amino]-3-oxopropyl]- ω -methoxy-(9CI) (CA INDEX NAME)

$$\label{eq:meomeometric} \text{MeO-} \begin{picture}(20,0) \put(0,0) \put(0,0$$

RN 724722-58-1 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -[3-[[[(trans)-4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)cyclohexyl]methyl]amino]-3-oxopropyl]- ω -methoxy-(9CI) (CA INDEX NAME)

MeO
$$CH_2$$
 CH_2 $CH_$

RN 724722-58-1 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -[3-[[[(trans)-4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)cyclohexyl]methyl]amino]-3-oxopropyl]- ω -methoxy-(9CI) (CA INDEX NAME)

MeO
$$CH_2-CH_2-O$$
 $CH_2-CH_2-CH_2-CH_2$ $CH_2-CH_2-CH_2$

RN 724722-68-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -[3-[[(trans)-4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)cyclohexyl]amino]-3-oxopropyl]- ω -methoxy- (9CI) (CA INDEX NAME)

MeO CH2-CH2-O
$$\frac{0}{n}$$
 CH2-CH2-C-NH

RN 724722-75-2 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -[3-[[[3-[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]cyclohexyl]methyl]amino]-3-oxopropyl]- ω -methoxy-(9CI) (CA INDEX NAME)

MeO
$$CH_2-CH_2-O$$
 $CH_2-CH_2-CH_2-CH_2-CH_2$ CH_2 CH_2 CH_2

RN 724722-75-2 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -[3-[[[3-[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]cyclohexyl]methyl]amino]-3-oxopropyl]- ω -methoxy-(9CI) (CA INDEX NAME)

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ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2006 ACS on STN
ΑN
    2004:589588 HCAPLUS Full-text
DN
    141:140951
TI
    Hydrolytically stable maleimide-terminated polymers and their preparation
ΙN
    Kozlowski, Antoni; Gross, Remy F., III; McManus,
    Samuel P.
PA
    Nektar Therapeutics Al, Corporation, USA
SO
    PCT Int. Appl., 118 pp.
    CODEN: PIXXD2
DT
    Patent
LA
    English
FAN.CNT 2
     PATENT NO.
                        KIND
                                           APPLICATION NO.
                               DATE
                                                                  DATE
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            ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,
            TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
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    EP 1578842
                         A2
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            IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
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                         Α
                                        CN 2003-80108010 20031231, <--
    JP 2006512445
                         T2
                               20060413
                                           JP 2004-564914
                                                                  20031231 <--
PRAI US 2002-437211P
                         Ρ
                               20021231
                                        <--
    WO 2003-US41699
                         W
                               20031231
                                        <--
```

GΙ

- AB The hydrolytically stabilized maleimide-functionalized water-soluble polymer I (POLY = water-soluble polymer segment; b = 0, 1; X = a hydrolytically stable linker containing ≥ 3 contiguous saturated carbon atom) is absent aromatic groups and ester linkages.
- IT 724722-30-9P 724722-47-8P 724722-58-1P 724722-68-3P 724722-77-4P 724722-80-9P 724722-83-2P 724722-86-5P

RL: IMF (Industrial manufacture); PREP (Preparation) (preparation of hydrolytically stable maleimide-terminated polymers)

RN 724722-30-9 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -[15-[3-[(2-hydroxyethyl)thio]-2,5-dioxo-1-pyrrolidinyl]-1-oxo-6,9,12-trioxa-2-azapentadec-1-yl]- ω -methoxy-(9CI) (CA INDEX NAME)

PAGE 1-B

$$-CH_2$$
 OMe

RN 724722-47-8 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -[3-[[[4-[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]cyclohexyl]methyl]amino]-3-oxopropyl]- ω -methoxy-(9CI) (CA INDEX NAME)

$$MeO \qquad \boxed{ CH_2-CH_2-O- } \qquad CH_2-CH_2-C- NH-CH_2 \\ \qquad CH_2 \qquad CH_2$$

RN 724722-58-1 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -[3-[[[(trans)-4-(2,5-dihydro-2,5-dioxo-

1H-pyrrol-1-yl)cyclohexyl]methyl]amino]-3-oxopropyl]- ω -methoxy-(9CI) (CA INDEX NAME)

MeO
$$CH_2-CH_2-O$$
 $CH_2-CH_2-CH_2-CH_2-CH_2$

RN 724722-68-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -[3-[[(trans)-4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)cyclohexyl]amino]-3-oxopropyl]- ω -methoxy- (9CI) (CA INDEX NAME)

RN 724722-77-4 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -[3-[[[4-[[3-[(2-hydroxyethyl)thio]-2,5-dioxo-1-pyrrolidinyl]methyl]cyclohexyl]methyl]amino]-3-oxopropyl]- ω -methoxy- (9CI) (CA INDEX NAME)

RN 724722-80-9 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -[3-[[(trans)-4-[3-[(2-hydroxyethyl)thio]-2,5-dioxo-1-pyrrolidinyl]cyclohexyl]methyl]amino]-3-oxopropyl]- ω -methoxy- (9CI) (CA INDEX NAME)

MeO
$$CH_2$$
 CH_2 CH_2 CH_2 CH_2 CH_3 CH_4 CH_5 CH_5 CH_6 CH_7 CH_8 $CH_$

RN 724722-83-2 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -[3-[[(trans)-4-[3-[(2-hydroxyethyl)thio]-2,5-dioxo-1-pyrrolidinyl]cyclohexyl]amino]-3-oxopropyl]- ω -methoxy-(9CI) (CA INDEX NAME)

MeO
$$CH_2-CH_2-O$$
 n $CH_2-CH_2-CH_2-O$ N O $S-CH_2-CH_2-OH$

RN 724722-86-5 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -[3-[[[3-[[3-[(2-hydroxyethyl)thio]-2,5-dioxo-1-pyrrolidinyl]methyl]cyclohexyl]methyl]amino]-3-oxopropyl]- ω -methoxy- (9CI) (CA INDEX NAME)

IT 724722-20-7P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(preparation of hydrolytically stable maleimide-terminated polymers)

RN 724722-20-7 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -[15-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxo-6,9,12-trioxa-2-azapentadec-1-yl]- ω -methoxy- (9CI) (CA INDEX NAME)

PAGE 1-B

$$-CH_2$$
 OMe

IT 724722-75-2

RL: TEM (Technical or engineered material use); USES (Uses) (preparation of hydrolytically stable maleimide-terminated polymers)

RN 724722-75-2 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -[3-[[[3-[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]cyclohexyl]methyl]amino]-3-oxopropyl]- ω -methoxy-(9CI) (CA INDEX NAME)

=> fil uspatful FILE 'USPATFULL' ENTERED AT 14:49:09 ON 25 SEP 2006 CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 21 Sep 2006 (20060921/PD)
FILE LAST UPDATED: 21 Sep 2006 (20060921/ED)
HIGHEST GRANTED PATENT NUMBER: US7111325
HIGHEST APPLICATION PUBLICATION NUMBER: US2006212984
CA INDEXING IS CURRENT THROUGH 21 Sep 2006 (20060921/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 21 Sep 2006 (20060921/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2006
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2006

=> d bib abs hitstr tot 155 L55 ANSWER 1 OF 2 USPATFULL on STN 2006:10736 USPATFULL Full-text ΑN TΙ Hydrolytically stable maleimide-terminated polymers ΤN Kozlowski, Antoni, Huntsville, AL, UNITED STATES Gross, Remy F. III, Petaluma, CA, UNITED STATES McManus, Samuel P., Brevard, NC, UNITED STATES PΙ US 2006009590 Α1 20060112 ΑI US 2005-91024 Α1 20050325 (11) RLI Continuation-in-part of Ser. No. US 2003-751274, filed on 31 Dec 2003, PENDING PRAI US 2002-437211P 20021231 (60) DTUtility FS APPLICATION LREP NEKTAR THERAPEUTICS, 150 INDUSTRIAL ROAD, SAN CARLOS, CA, 94070, US CLMN Number of Claims: 44 ECL Exemplary Claim: 1-105 DRWN 3 Drawing Page(s) LN.CNT 2972 CAS INDEXING IS AVAILABLE FOR THIS PATENT. The present invention is directed to hydrolytically stabilized maleimide-AΒ functionalized water soluble polymers and to methods for making and utilizing such polymers and their precursors.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

724722-20-7DP, conjugate with 2-mercaptoethanol 724722-20-7P 724722-47-8DP, conjugate with 2-mercaptoethanol 724722-47-8P 724722-58-1DP, conjugate with 2-mercaptoethanol 724722-58-1P 724722-68-3DP, conjugate with 2-mercaptoethanol 724722-75-2DP, conjugate with 2-mercaptoethanol 724722-75-2P (hydrolytically stable maleimide-terminated polymers)

RN 724722-20-7 USPATFULL

CN Poly(oxy-1,2-ethanediyl), α -[15-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1yl)-1-oxo-6,9,12-trioxa-2-azapentadec-1-yl]- ω -methoxy- (9CI) INDEX NAME)

PAGE 1-B

RN 724722-20-7 USPATFULL

CN Poly(oxy-1,2-ethanediyl), α -[15-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxo-6,9,12-trioxa-2-azapentadec-1-yl]- ω -methoxy- (9CI) (CA INDEX NAME)

PAGE 1-B

$$-CH_2$$
 OMe

RN 724722-47-8 USPATFULL

CN Poly(oxy-1,2-ethanediyl), α -[3-[[[4-[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]cyclohexyl]methyl]amino]-3-oxopropyl]- ω -methoxy-(9CI) (CA INDEX NAME)

MeO
$$CH_2-CH_2-O$$
 $CH_2-CH_2-CH_2-CH_2-CH_2$ CH_2 CH_2

RN 724722-47-8 USPATFULL

CN Poly(oxy-1,2-ethanediyl), α -[3-[[[4-[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]cyclohexyl]methyl]amino]-3-oxopropyl]- ω -methoxy-(9CI) (CA INDEX NAME)

RN 724722-58-1 USPATFULL

CN Poly(oxy-1,2-ethanediyl), α -[3-[[{(trans)-4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)cyclohexyl]methyl]amino]-3-oxopropyl]- ω -methoxy-(9CI) (CA INDEX NAME)

MeO
$$CH_2-CH_2-O$$
 $CH_2-CH_2-CH_2-CH_2-CH_2$

RN 724722-58-1 USPATFULL

CN Poly(oxy-1,2-ethanediyl), α -[3-[[[(trans)-4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)cyclohexyl]methyl]amino]-3-oxopropyl]- ω -methoxy-(9CI) (CA INDEX NAME)

RN 724722-68-3 USPATFULL

CN Poly(oxy-1,2-ethanediyl), α -[3-[[(trans)-4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)cyclohexyl]amino]-3-oxopropyl]- ω -methoxy- (9CI) (CA INDEX NAME)

RN 724722-75-2 USPATFULL

CN Poly(oxy-1,2-ethanediyl), α -[3-[[[3-[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]cyclohexyl]methyl]amino]-3-oxopropyl]- ω -methoxy-(9CI) (CA INDEX NAME)

MeO
$$CH_2-CH_2-O$$
 n CH_2-CH_2 O $nH-CH_2$ CH_2

RN 724722-75-2 USPATFULL

CN Poly(oxy-1,2-ethanediy1), α -[3-[[[3-[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]cyclohexyl]methyl]amino]-3-oxopropyl]- ω -methoxy-(9CI) (CA INDEX NAME)

L55 ANSWER 2 OF 2 USPATFULL on STN 2004:262046 USPATFULL Full-text ΑN TI Hydrolytically stable maleimide-terminated polymers IN Kozlowski, Antoni, Huntsville, AL, UNITED STATES Gross, Remy F., III, Huntsville, AL, UNITED STATES McManus, Samuel P., Brevard, NC, UNITED STATES ΡI US 2004204548 Α1 20041014 ΑI US 2003-751274 A1 20031231 (10) PRAI US 2002-437211P 20021231 (60) DTUtility

FS APPLICATION

LREP NEKTAR THERAPEUTICS, 150 INDUSTRIAL ROAD, SAN CARLOS, CA, 94070

CLMN Number of Claims: 130 ECL Exemplary Claim: 1 DRWN 3 Drawing Page(s)

LN.CNT 3229

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention is directed to hydrolytically stabilized maleimidefunctionalized water soluble polymers and to methods for making and utilizing such polymers and their precursors.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 724722-30-9P 724722-47-8P 724722-58-1P

724722-68-3P 724722-77-4P 724722-80-9P

724722-83-2P 724722-86-5P

(preparation of hydrolytically stable maleimide-terminated polymers)

RN 724722-30-9 USPATFULL

CN Poly(oxy-1,2-ethanediyl), α -[15-[3-[(2-hydroxyethyl)thio]-2,5-dioxo-1-pyrrolidinyl]-1-oxo-6,9,12-trioxa-2-azapentadec-1-yl]- ω -methoxy-(9CI) (CA INDEX NAME)

PAGE 1-B

$$-CH_2$$
 OMe

RN 724722-47-8 USPATFULL

CN Poly(oxy-1,2-ethanediyl), α -[3-[[[4-[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]cyclohexyl]methyl]amino]-3-oxopropyl]- ω -methoxy-(9CI) (CA INDEX NAME)

MeO
$$CH_2-CH_2-O$$
 $CH_2-CH_2-CH_2-CH_2-CH_2$ CH_2 CH_2

RN 724722-58-1 USPATFULL

CN Poly(oxy-1,2-ethanediyl), α -[3-[[[(trans)-4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)cyclohexyl]methyl]amino]-3-oxopropyl]- ω -methoxy-(9CI) (CA INDEX NAME)

MeO
$$CH_2-CH_2-O$$
 $CH_2-CH_2-CH_2-CH_2-CH_2$ O O O O

RN 724722-68-3 USPATFULL

CN Poly(oxy-1,2-ethanediyl), α -[3-[[(trans)-4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)cyclohexyl]amino]-3-oxopropyl]- ω -methoxy- (9CI) (CA INDEX NAME)

$$MeO \qquad \boxed{ CH_2-CH_2-O \qquad } CH_2-CH_2-C-NH$$

RN 724722-77-4 USPATFULL

CN Poly(oxy-1,2-ethanediyl), α -[3-[[[4-[[3-[(2-hydroxyethyl)thio]-2,5-dioxo-1-pyrrolidinyl]methyl]cyclohexyl]methyl]amino]-3-oxopropyl]- ω -methoxy- (9CI) (CA INDEX NAME)

CN Poly(oxy-1,2-ethanediyl), α -[3-[[[(trans)-4-[3-[(2-hydroxyethyl)thio]-2,5-dioxo-1-pyrrolidinyl]cyclohexyl]methyl]amino]-3-oxopropyl]- ω -methoxy- (9CI) (CA INDEX NAME)

RN 724722-83-2 USPATFULL

CN Poly(oxy-1,2-ethanediyl), α -[3-[[(trans)-4-[3-[(2-hydroxyethyl)thio]-2,5-dioxo-1-pyrrolidinyl]cyclohexyl]amino]-3-oxopropyl]- ω -methoxy-(9CI) (CA INDEX NAME)

RN 724722-86-5 USPATFULL

CN Poly(oxy-1,2-ethanediyl), α -[3-[[[3-[[3-[(2-hydroxyethyl)thio]-2,5-dioxo-1-pyrrolidinyl]methyl]cyclohexyl]methyl]amino]-3-oxopropyl]- ω -methoxy- (9CI) (CA INDEX NAME)

$$\label{eq:meometric} \text{MeO---} \begin{array}{c} \text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CH}_2\\ \text{CH}_2\\ \text{S--}\text{CH}_2-\text{CH}_2-\text{OH} \\ \end{array}$$

(preparation of hydrolytically stable maleimide-terminated polymers) RN 724722-20-7 USPATFULL

CN Poly(oxy-1,2-ethanediyl), α -[15-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxo-6,9,12-trioxa-2-azapentadec-1-yl]- ω -methoxy- (9CI) (CA INDEX NAME)

PAGE 1-B

$$-CH_2$$
 OMe

IT 724722-75-2

(preparation of hydrolytically stable maleimide-terminated polymers) RN 724722-75-2 USPATFULL

CN Poly(oxy-1,2-ethanediyl), α -[3-[[[3-[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]cyclohexyl]methyl]amino]-3-oxopropyl]- ω -methoxy-(9CI) (CA INDEX NAME)

MeO
$$CH_2$$
 CH_2 CH_2 CH_2 CH_2 CH_2 CH_2 CH_2 CH_2 CH_2

=> => fil reg FILE 'REGISTRY' ENTERED AT 14:56:33 ON 25 SEP 2006 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2006 American Chemical Society (ACS)

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STRUCTURE FILE UPDATES: 24 SEP 2006 HIGHEST RN 908332-13-8 DICTIONARY FILE UPDATES: 24 SEP 2006 HIGHEST RN 908332-13-8

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TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

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http://www.cas.org/ONLINE/UG/regprops.html

=> d ide can tot 160

L60 ANSWER 1 OF 9 REGISTRY COPYRIGHT 2006 ACS on STN

RN 880551-82-6 REGISTRY

ED Entered STN: 17 Apr 2006

CN Octanamide, N-[4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)butyl]2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, polymer with 1-octadecene, alternating (9CI) (CA INDEX NAME)

MF (C18 H36 . C16 H11 F15 N2 O3) x

CI PMS

PCT Polyolefin, Polyvinyl

SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 880551-80-4 CMF C16 H11 F15 N2 O3

CM 2

CRN 112-88-9 CMF C18 H36

 $H_2C = CH - (CH_2) 15 - Me$

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 144:332070

L60 ANSWER 2 OF 9 REGISTRY COPYRIGHT 2006 ACS on STN

```
RN
     880551-81-5 REGISTRY
ED
     Entered STN: 17 Apr 2006
CN
     Octanamide, N-[4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)butyl]-
     2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, polymer with ethene,
     alternating (9CI) (CA INDEX NAME)
     (C16 H11 F15 N2 O3 . C2 H4) x
MF
CI
PCT
     Polyolefin, Polyvinyl
SR
LC
     STN Files: CA, CAPLUS
     CM
          1
     CRN 880551-80-4
     CMF C16 H11 F15 N2 O3
```

CM2

CRN 74-85-1 CMF C2 H4

 $H_2C = CH_2$

1 REFERENCES IN FILE CA (1907 TO DATE) 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 144:332070

L60 ANSWER 3 OF 9 REGISTRY COPYRIGHT 2006 ACS on STN RN 871133-41-4 REGISTRY ED Entered STN: 04 Jan 2006 CN Poly(oxy-1,2-ethanediyl), α -[2-[(23-carboxytricosyl)amino]-2oxoethyl]- ω -[2-[[4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1yl)butyl]amino]-2-oxoethoxy]- (9CI) (CA INDEX NAME) (C2 H4 O)n C36 H63 N3 O7 MF CI **PMS** PCT Polyether SR CA LC STN Files:

CA, CAPLUS

$$(CH_2)_4 - NH - C - CH_2 - O - CH_2 - CH_2 - O - I_n - CH_2 - CH_2 - CH_2 - O - I_n - CH_2 - CH_2 - O - I_n - CH_2 -$$

PAGE 1-B

- (CH2)23-CO2H

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 144:51444

L60 ANSWER 4 OF 9 REGISTRY COPYRIGHT 2006 ACS on STN

RN 869587-21-3 REGISTRY

ED Entered STN: 08 Dec 2005

CN Maltodextrin, [5-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)pentyl]carbamate, polymer with 7-methyl-N-[3-[(2-methyl-1-oxo-2-propenyl)amino]propyl]-9-oxo-9H-thioxanthene-3-carboxamide and 2-propenamide (9CI) (CA INDEX NAME)

MF (C22 H22 N2 O3 S . C10 H14 N2 O4 . C3 H5 N O . x Unspecified) x

CI PMS

PCT Manual component, Polyacrylic, Polyother, Polyvinyl

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

CM 1

CRN 244202-41-3 CMF C22 H22 N2 O3 S

CM 2

CRN 79-06-1 CMF C3 H5 N O

CM 3

CRN 869587-19-9

CMF C10 H14 N2 O4 . \times Unspecified

CM 4

CRN 869587-18-8 CMF C10 H14 N2 O4

CM 5

CRN 9050-36-6 CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 143:483236

L60 ANSWER 5 OF 9 REGISTRY COPYRIGHT 2006 ACS on STN

RN 869587-19-9 REGISTRY

ED Entered STN: 08 Dec 2005

CN Maltodextrin, [5-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)pentyl]carbamate (9CI) (CA INDEX NAME)

MF C10 H14 N2 O4 . x Unspecified

CI COM

PCT Manual registration

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

CM 1

CRN 869587-18-8 CMF C10 H14 N2 O4

CRN 9050-36-6 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 143:483236

L60 ANSWER 6 OF 9 REGISTRY COPYRIGHT 2006 ACS on STN

RN 479421-81-3 REGISTRY

ED Entered STN: 17 Jan 2003

CN Poly(oxy-1,2-ethanediyl), α,α' -[[(1 α ,3 α ,5 α)-5-[[[[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)propyl]amino]carbonyl]oxy]m ethyl]-1,3-cyclohexanediyl]bis(methyleneoxycarbonylimino-3,1-

propanediyl)]bis[ω-methoxy- (9CI) (CA INDEX NAME)

MF (C2 H4 O)n (C2 H4 O)n C27 H44 N4 O10

CI PMS

PCT Polyether

SR CA

LC STN Files: CA, CAPLUS

PAGE 1-B

$$-NH-(CH2)3-CH2-CH2-CH2-DMe$$

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:78455

L60 ANSWER 7 OF 9 REGISTRY COPYRIGHT 2006 ACS on STN

RN 445389-35-5 REGISTRY

ED Entered STN: 29 Aug 2002

CN Poly(oxy-1,2-ethanediyl), α -hydro- ω -methoxy-, ether with 2-[[[[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)propyl]amino]carbonyl]oxy]m ethyl]-2-[[[[(3-hydroxypropyl)amino]carbonyl]oxy]methyl]-1,3-propanediyl bis[(3-hydroxypropyl)carbamate] (3:1) (9CI) (CA INDEX NAME)

MF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C28 H47 N5 O13

CI PMS

PCT Polyether

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

PAGE 1-B

$$CH_2$$
 n OMe CH_2 n OMe n OMe n OMe n OMe

2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:78455

REFERENCE 2: 137:159338

L60 ANSWER 8 OF 9 REGISTRY COPYRIGHT 2006 ACS on STN

RN 348098-39-5 REGISTRY

ED Entered STN: 25 Jul 2001

CN Poly(oxy-1,2-ethanediyl), $\alpha,\alpha'-[[(1\alpha,3\alpha,5\alpha)-5-[2-[[[4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)butyl]amino]carbonyl]oxy]ethyl]-1,3-cyclohexanediyl]bis(2,1-ethanediyloxycarbonylimino-3,1-propanediyl)]bis[<math>\omega$ -methoxy-(9CI)(CA INDEX NAME)

MF (C2 H4 O)n (C2 H4 O)n C31 H52 N4 O10

CI PMS

PCT Polyether

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

PAGE 1-B

$$-CH_2-O-C-NH-(CH_2)_3-CH_2-CH_2-D-CH_2-CH_2-D-OMe$$

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 135:87194

L60 ANSWER 9 OF 9 REGISTRY COPYRIGHT 2006 ACS on STN

RN 183149-96-4 REGISTRY

ED Entered STN: 19 Nov 1996

CN Cellulose, [3-(2,5-dihydro-3,4-dimethyl-2,5-dioxo-1H-pyrrol-1-yl)propyl]carbamate (9CI) (CA INDEX NAME)

MF C10 H14 N2 O4 . x Unspecified

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 183149-95-3 CMF C10 H14 N2 O4

CRN 9004-34-6

CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 125:315844

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CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

=> d bib abs hitstr retable tot 168

L68 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:5795 HCAPLUS Full-text

DN 138:78455

TI Ointments containing polyalkylene glycol derivative-modified biologically active polypeptides

IN Yamasaki, Motoo; Suzawa, Toshiyuki; Murakami, Tatsuya; Sakurai, Noriko

PA Kyowa Hakko Kogyo Co., Ltd., Japan

SO PCT Int. Appl., 165 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PAT	CENT I	NO.			KIN	D	DATE		i	APPL	ICAT	ION	NO.		D	ATE		
PΙ	WO 2003000278				A1 20030103			Ī	WO 2002-JP6227					20020621 <					
		W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,	
			CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	
			GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KR,	ΚZ,	LC,	LK,	LR,	LS,	
			LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	OM,	PH,	PL,	
			PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,	ΤZ,	UA,	
			UG,	US,	UZ,	VN,	YU,	ZA,	ZM,	ZW,	AM,	AZ,	BY,	KG,	ΚZ,	MD,	RU,	ТJ,	MT
		RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AT,	BE,	CH,	
			CY,	DE,	DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	TR,	
			BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG	
PRAI	JP	2001	-190	330		Α		2001	0622	<	-								

Disclosed are ointments containing a chemical modified physiol. active polypeptide, wherein the chemical modified physiol. active polypeptide is exemplified by a physiol. active polypeptide chemical modified with at least one polyalkylene glycol, and the physiol. active polypeptide to be chemical modified is exemplified by superoxide dismutase, interferon- α , interferon- β , interferon- γ and granulocyte colony-stimulating factor. A polyethylene glycol cyclohexane derivative was prepared, and its N-hydroxysucinimide ester was reacted with recombinant human interferon- β . The modified interferon- β showed excellent antivirus activity in FL cells. Also, an ointment containing modified interferon- β -containing ointment.

IT 479421-81-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of polyalkylene glycol derivative-modified biol. active polypeptides for ointments)

RN 479421-81-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α,α' -[[(1 α ,3 α ,5 α)-5-[[[[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)propyl]amino]carbonyl]oxy]m ethyl]-1,3-cyclohexanediyl]bis(methyleneoxycarbonylimino-3,1-propanediyl)]bis[ω -methoxy- (9CI) (CA INDEX NAME)

PAGE 1-B

$$-NH - (CH2) 3 - CH2 - CH2 - CH2 - OMe$$

IT 445389-35-5DP, conjugates with polypeptides 445389-35-5P 479421-81-3DP, conjugates with polypeptides

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of polyalkylene glycol derivative-modified biol. active polypeptides for ointments)

RN 445389-35-5 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -hydro- ω -methoxy-, ether with 2-[[[[3-(2,5-dihydro-2,5-dioxo-lH-pyrrol-1-yl)propyl]amino]carbonyl]oxy]m ethyl]-2-[[[[(3-hydroxypropyl)amino]carbonyl]oxy]methyl]-1,3-propanediyl bis[(3-hydroxypropyl)carbamate] (3:1) (9CI) (CA INDEX NAME)

PAGE 1-B

$$-CH_2$$
 OMe
 $-CH_2$ OMe
 $-CH_2$ OMe
 $-CH_2$ OMe

RN 445389-35-5 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -hydro- ω -methoxy-, ether with 2-[[[[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)propyl]amino]carbonyl]oxy]m ethyl]-2-[[[(3-hydroxypropyl)amino]carbonyl]oxy]methyl]-1,3-propanediyl bis[(3-hydroxypropyl)carbamate] (3:1) (9CI) (CA INDEX NAME)

$$-CH_2$$
 OMe
 $-CH_2$ OMe
 $-CH_2$ OMe
 $-CH_2$ OMe

RN 479421-81-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), $\alpha,\alpha'-[[(1\alpha,3\alpha,5\alpha)-5-[[[[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)propyl]amino]carbonyl]methyl]-1,3-cyclohexanediyl]bis(methyleneoxycarbonylimino-3,1-propanediyl)]bis[<math>\omega$ -methoxy-(9CI) (CA INDEX NAME)

PAGE 1-B

$$-NH-(CH2)3$$
 $-CH2-CH2-CH2 OMe$

RETABLE

	Year VOL (RPY) (RVL)	(RPG)	Referenced Work (RWK)	Referenced File
Asahi Chemical Industry	1995	1	JP 07-118165 A	HCAPLUS
	1987			HCAPLUS
Cetus Corp	1987	1	JP 62-503171 A	1
F Hoffman-La Roche Ag	1994	1	JP 06-192300 A	HCAPLUS
F Hoffman-La Roche Ag	1994	1	EP 593868 A1	HCAPLUS
Johnson & Johnson Medic	2000	1	WO 00033893 A1	HCAPLUS
Johnson & Johnson Medic	2000	1 1	EP 1053029 A1	HCAPLUS

```
Johnson & Johnson Medic | 2000 |
                                          IJP 2002531532 A
                                   - 1
                                                                1
                                        |JP 01-85934 A
                                  - 1
Takara Shuzo Kabushiki | 1989 |
Takeda Chemical Industr | 1987 |
                                          |EP 210761 A1
                                   | HCAPLUS
Takeda Chemical Industr | 1987 |
                                          |JP 62-115280 A
                                   -
                                                               | HCAPLUS
Teijin Ltd
                       |1989 |
                                   1
                                          JP 01-175999 A
                                                               | HCAPLUS
L68
    ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2006 ACS on STN
AN
     2002:594916 HCAPLUS Full-text
DN
     137:159338
ΤI
     Branched polyalkylene glycols for modification of bioactive peptides
IN
     Yamasaki, Motoo; Suzawa, Toshiyuki; Murakami, Tatsuya; Sakurai, Noriko;
     Yamashita, Kinya; Mukai, Mayumi; Kuwabara, Takashi
PA
     Kyowa Hakko Kogyo Co., Ltd., Japan
SO
     PCT Int. Appl., 82 pp.
     CODEN: PIXXD2
\mathsf{D}\mathbf{T}
     Patent
LA
     Japanese
FAN.CNT 1
     PATENT NO.
                        KIND
                                DATE
                                          APPLICATION NO.
                                                                   DATE
                                            -----
                                                                   _____
                                         WO 2002-JP709
     WO 2002060978
                         A1
                                20020808
PT
                                                                   20020130 <--
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             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS,
             LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL,
             PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA,
             UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
             CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     CA 2436623
                         AA
                                20020808
                                         CA 2002-2436623
                                                                   20020130 <--
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                          A1
                                20040324
                                            EP 2002-712277
                                                                   20020130 <--
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
                                            US 2004-470680
     US 2005063936
                          Α1
                                20050324
                                                                   20040112 <--
PRAI JP 2001-21616
                          Α
                                20010130
                                         <--
     WO 2002-JP709
                                20020130 <--
                          W
AΒ
     Disclosed are branched polyalkylene glycols which comprise at least three single-
     chain polyalkylene glycols bonded to each other and have a group reactive with an
     amino acid side chain, an N-terminal amino group or a C-terminal carboxyl group
     in a polypeptide or a group which can be converted into the reactive group as
     described above attached thereto; and physiol. active polypeptides modified by
     these branched polyalkylene glycols. A three single-chain branched polyethylene
     glycol derivative was prepared from tricine and Me(OC2H5)nNCO. The obtained PEG
     derivative was esterified with N-hydroxysuccinimide, and reacted with recombinant
     human interferon-\beta (rhIFN-\beta) solution The modified rhIFN-\beta showed improved
     antivirus activity in FL cells and blood IFN-\beta concentration in mice as compared
     with unmodified rhIFN-β.
ΙT
     445389-35-5DP, esters, reaction products with bioactive peptides
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
        (branched polyalkylene glycols for modification of bioactive peptides)
RN
     445389-35-5 HCAPLUS
CN
     Poly(oxy-1,2-ethanediyl), \alpha-hydro-\omega-methoxy-, ether with
     2-[[[[[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)propyl]amino]carbonyl]oxy]m
     ethyl]-2-[[[[(3-hydroxypropyl)amino]carbonyl]oxy]methyl]-1,3-propanediyl
```

bis[(3-hydroxypropyl)carbamate] (3:1) (9CI) (CA INDEX NAME)

$$CH_2$$
 n OMe CH_2 n OMe n OMe n OMe n OMe

RETABLE

Referenced Author (RAU)	Year VOL (RPY) (RVL)	(RPG)	(RWK)	Referenced File
Bracco S P A	1997		11514396 A	
Bracco S P A	1997	US	5807971 A	HCAPLUS
Bracco S P A	1997	DE	860262 A	1
Bracco S P A	1997	WO	9710281 A	HCAPLUS
Enzon Inc	1995	JP	09504299 A	1
Enzon Inc	1995	US	5919455 A	HCAPLUS
Enzon Inc	1995	EP	788515 A	HCAPLUS
Enzon Inc	1995	WO	9511924 A	HCAPLUS
Japan Science And Techn	2001	JP	200164383 A	1
Kyowa Hakko Kogyo Co Lt	12000	JP	2000191700 A	HCAPLUS
Nof Corp	1998	JP	10139877 A	HCAPLUS
Nof Corp	1998	JP	10139878 A	HCAPLUS
Nof Corp	1998	US	5767284 A	HCAPLUS
Nof Corp	1998	US	5872191 A	HCAPLUS
Nof Corp	1998	DE	69703780 Т	1
Nof Corp	1998	EP	839849 A	HCAPLUS
Nof Corp	1998	EP	839850 A	HCAPLUS
Shearwater Polymers Inc		JP	2002506087 A	1
Shearwater Polymers Inc		US	6111048 A	HCAPLUS
Shearwater Polymers Inc		EP	884341 A	HCAPLUS
Shearwater Polymers Inc	1999	WO	9945964 A	HCAPLUS
Supratek Pharma Inc	1999		2002504519 A	1
Supratek Pharma Inc	1999	US	5698529 A	HCAPLUS
Supratek Pharma Inc	1999		619730 A	HCAPLUS
Supratek Pharma Inc	1999	I IMO	9943343 A	HCAPLUS

L68 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2001:489516 HCAPLUS Full-text

DN 135:87194

```
TI Branched polyalkylene glycols
```

- IN Yamasaki, Motoo; Suzawa, Toshiyuki; Murakami, Tatsuya; Sakurai, Noriko; Yamashita, Kinya; Mukai, Mayumi; Kuwabara, Takashi; Ohta, So; Miki, Ichiro
- PA Kyowa Hakko Kogyo Co., Ltd., Japan
- SO PCT Int. Appl., 103 pp. CODEN: PIXXD2
- DT Patent
- LA Japanese

FAN.CNT 1

	PATENT NO.				KIND DATE			APPLICATION NO.										
ΡI	WO 2001048052			A1	A1 20010705			WO 2000-JP9159										
		W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,
								DM,										
			HU,	ID,	.IL,	IN,	IS,	JP,	KE,	KG,	KR,	ΚZ,	LC,	LK,	LR,	LS,	LT,	LU,
								MN,										
			SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VN,	YU,
			ZA,	ZW,	AM,	AZ,	BY,	KG,	ΚZ,	MD,	RU,	ТJ,	TM					
		RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZW,	AT,	ΒE,	CH,	CY,
			DE,	DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	TR,	BF,
			ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GW,	ML,	MR,	NE,	SN,	TD,	TG		
	CA	2395	254			AA		2001	0705	(CA 20	000-i	2395	254		2	00012	222 <
	ΑU	2001	0222	34		A5		2001	0709	i	AU 20	001-	2223	4		2	0001	222 <
	EP 1270642			A1		20030102			EP 2000-985846				20001222 <					
		R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
			ΙE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR						
	US	2003	2194	04		A1		2003:	1127	i	JS 20	002-	1689	56		2	0020	624 <
PRAI	JΡ	1999	-366	312		Α		1999:	1224	<	-							
	WO	2000	-JP9	159		W		2000	1222	<	_							
T -	_						_	_	_	_								

- Branched polyalkylene glycols useful as reagents for chemical modifying physiol. active polypeptides wherein two single-chain polyalkylene glycols are attached to a group having a cyclic structure other than a planar structure and a group reactive with an amino acid side chain, the N-terminal amino group or the C-terminal carboxyl group in a polypeptide or a group which can be converted into such a reactive group is further attached thereto.
- IT 348098-39-5DP, superoxide dismutase conjugate

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(branched polyalkylene glycols for chemical modifying physiol. active polypeptides)

RN 348098-39-5 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α,α' -[[(1 α ,3 α ,5 α)-5-[2-[[[4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)butyl]amino]carbonyl]oxy]ethyl]-1,3-cyclohexanediyl]bis(2,1-ethanediyloxycarbonylimino-3,1-propanediyl)]bis[ω -methoxy-(9CI)(CA INDEX NAME)

$$-CH_2-O-C-NH-(CH_2)_3-CH_2-CH_2-CH_2-NH-OME$$

IT 348098-39-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(branched polyalkylene glycols for chemical modifying physiol. active polypeptides)

RN 348098-39-5 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), $\alpha,\alpha'-[[(1\alpha,3\alpha,5\alpha)-5-[2-[[[4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)butyl]amino]carbonyl]oxy]ethyl]-1,3-cyclohexanediyl]bis(2,1-ethanediyloxycarbonylimino-3,1-propanediyl)]bis[<math>\omega$ -methoxy-(9CI)(CA INDEX NAME)

PAGE 1-B

$$-CH_2-O-C-NH-(CH_2)_3-C-CH_2-CH_2-NH-(CH_2)_n$$
 OMe

RETABLE

Referenced Author (RAU)	Year VOL (RPY) (RVL) (RPG)	, , ,	Referenced File
	-+=====	=+=====	'	-+
Bracco Spa		I	JP 11514396 A	
Bracco Spa		l	IT 1277596 B	
Bracco Spa		1	US 5807971 A	HCAPLUS
Bracco Spa	1	1	AU 717922 B	HCAPLUS
Bracco Spa		1	EP 850262 A	HCAPLUS
Bracco Spa	1 1	9	ZA 9607759 A	HCAPLUS
Bracco Spa	1 1		NO 9801092 A	HCAPLUS
Bracco Spa	1 1		KR 99044595 A	1
Bracco Spa	1997		WO 9710281 A	HCAPLUS
Enzon Inc	1 1		WO 9701563 A	HCAPLUS
Enzon Inc	1997		JP 09504299 A	1
Protein Delivery Inc	1 1		IL 109619 A	HCAPLUS
Protein Delivery Inc	1 1		CN 1120457 A	HCAPLUS
Protein Delivery Inc	1 1		US 5359030 A	HCAPLUS
Protein Delivery Inc			AU 694919 B	HCAPLUS
Protein Delivery Inc		1	EP 707596 A	HCAPLUS
Protein Delivery Inc	1 1		IWO 9426778 A	HCAPLUS
Protein Delivery Inc	11996	1	JP 08510255 A	1

L68 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1996:694179 HCAPLUS Full-text

DN 125:315844

TI Photochemically cross-linked polysaccharide derivatives as supports for the chromatographic separation of enantiomers

IN Francotte, Eric

PA Ciba-Geigy A.-G., Switz. SO PCT Int. Appl., 36 pp. CODEN: PIXXD2 DT Patent LΑ English FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ____ ---------------PΙ WO 9627615 A1 19960912 WO 1996-EP773 19960224 <--W: AL, AM, AU, BB, BG, BR, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KP, KR, LK, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG CA 2212057 19960912 CA 1996-2212057 AA19960224 <--AU 9649414 A1 19960923 AU 1996-49414 19960224 <--AU 708454 В2 19990805 EP 813546 Α1 19971229 EP 1996-905796 19960224 <--EP 813546 20020717 В1 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE CN 1996-192364 CN 1177358 Α 19980325 19960224 <--JP 11509875 Т2 19990831 JP 1996-526567 19960224 <--AT 220691 E 20020815 AT 1996-905796 19960224 <--PT 813546 Т 20021129 PT 1996-905796 19960224 <--T3 A B1 ES 2179935 20030201 ES 1996-905796 19960224 <--FI 9703149 19970904 FI 1997-3149 19970729 <--FI 116840 20060315 US 1997-894976 Α US 6011149 20000104 19970902 <--19970905 NO 19950307 <--Α NO 9704092 NO 1997-4092 19970905 <--PRAI CH 1995-640 Α WO 1996-EP773 19960224 <--

The present invention relates to photochem. cross-linked polysaccharide derivs. (I), wherein R is a polysaccharide radical in which the OH groups were esterified or OR' groups or converted into a carbamate (urethane), R1 and R2 are each independently lower alkyl or unsubstituted or substituted aryl, X is a direct bond or phenylene, m is 0 or 1, and n is 0 or an integer from 1 to 20, to processes for the preparation thereof and to the use thereof. (IA) and (IB) can be used as supports in the chromatog. separation of enantiomers.

Ι

IT 183149-96-4DP, reaction products with 3,5-dimethylphenyl

isocyanate and crosslinking 183149-96-4P

RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(preparation of photochem. cross-linked polysaccharide derivs. as supports for chromatog. separation of enantiomers)

RN 183149-96-4 HCAPLUS

MARPAT 125:315844

OS

GΙ

CN Cellulose, [3-(2,5-dihydro-3,4-dimethyl-2,5-dioxo-1H-pyrrol-1-

yl)propyl]carbamate (9CI) (CA INDEX NAME)

CM I

CRN 183149-95-3 CMF C10 H14 N2 O4

CM 2

CRN 9004-34-6 CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 183149-96-4 HCAPLUS

CN Cellulose, [3-(2,5-dihydro-3,4-dimethyl-2,5-dioxo-1H-pyrrol-1-yl)propyl]carbamate (9CI) (CA INDEX NAME)

CM 1

CRN 183149-95-3 CMF C10 H14 N2 O4

CM 2

CRN 9004-34-6 CMF Unspecified CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L68 ANSWER 5 OF 8 USPATFULL on STN

AN 2005:74642 USPATFULL Full-text

TI Branched polyalkylene glycols

IN Yamasaki, Motoo, Tokyo, JAPAN
Suzawa, Toshiyuki, Kanagawa, JAPAN
Murakami, Tatsuya, Tokyo, JAPAN
Sakurai, Noriko, Tokyo, JAPAN
Yamashita, Kinya, Shizuoka, JAPAN

DUPLICATE 1

Makai, Mayumi, Shizuoka, JAPAN

Kuwabara, Takashi, Shizuoka, JAPAN

PI US 2005063936 A1 20050324

AI US 2004-470680 A1 20040112 (10)

WO 2002-JP709 20020130

PRAI JP 2001-21616 20010130

DT Utility

FS APPLICATION

LREP Lawrence S Perry, Fitzpatrick Cella Harper & Scinto, 30 Rockefeller

Plaza, New York, NY, 10112

CLMN Number of Claims: 11 ECL Exemplary Claim: 1 DRWN 2 Drawing Page(s)

LN.CNT 2699

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention provides a branched polyalkylene glycol wherein three or more single-chain polyalkylene glycols and a group having reactivity with an amino acid side chain, the N-terminal amino group or the C-terminal carboxyl group in a polypeptide or a group convertible into the group having reactivity are bound; and a physiologically active polypeptide modified with the branched polyalkylene glycol.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 445389-35-5DP, esters, reaction products with bioactive peptides

(branched polyalkylene glycols for modification of bioactive peptides)

RN 445389-35-5 USPATFULL

CN Poly(oxy-1,2-ethanediyl), α -hydro- ω -methoxy-, ether with

2-[[[[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-

yl)propyl]amino]carbonyl]oxy]methyl]-2-[[[[(3-

hydroxypropyl)amino]carbonyl]oxy]methyl]-1,3-propanediyl

bis[(3-hydroxypropyl)carbamate] (3:1) (9CI) (CA INDEX NAME)

PAGE 1-B

$$- CH_2 - OMe$$
 $- CH_2 - CH_2 - OMe$
 $- CH_2 - OMe$
 $- CH_2 - OMe$

```
L68 ANSWER 6 OF 8 USPATFULL on STN
                                                        DUPLICATE 2
       2003:311810 USPATFULL Full-text
ΑN
TI
       Branched polyalkylene glycols
IN
       Yamasaki, Motoo, Tokyo, JAPAN
       Suzawa, Toshiyuki, Tokyo, JAPAN
       Murakami, Tatsuya, Tokyo, JAPAN
       Sakurai, Noriko, Tokyo, JAPAN
       Yamashita, Kinya, Shizuoka, JAPAN
       Mukai, Mayumi, Shizuoka, JAPAN
       Kuwabara, Takashi, Shizuoka, JAPAN
       Ohta, So, Tokyo, JAPAN
       Miki, Ichiro, Shizuoka, JAPAN
PI
       US 2003219404
                               20031127
                          A1
ΑI
       US 2002-168956
                               20020624 (10)
                          A1
      WO 2000-JP9159
                               20001222
PRAI
       JP 1999-366312
                           19991224
DT
       Utility
FS
      APPLICATION
LREP
      FITZPATRICK CELLA HARPER & SCINTO, 30 ROCKEFELLER PLAZA, NEW YORK, NY,
CLMN
      Number of Claims: 16
ECL
       Exemplary Claim: 1
DRWN
       2 Drawing Page(s)
LN.CNT 3707
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AΒ
       The present invention provides branched polyalkylene glycols useful as a
       chemically modifying agent for physiologically active polypeptides, wherein two
       single-chain polyalkylene glycols are linked to a group having a cyclic
       structure other than a plane structure, and wherein a group having reactivity
       with an amino acid side chain, an N-terminal amino group or a C-terminal
       carboxyl group in a polypeptide or a group convertible into the group having
       reactivity is linked to the group having a structure other than a plane
       structure.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
   348098-39-5DP, superoxide dismutase conjugate
        (branched polyalkylene glycols for chemical modifying physiol. active
       polypeptides)
```

RN

CN

348098-39-5 USPATFULL

(CA INDEX NAME)

Poly(oxy-1,2-ethanediyl), α,α' -[[(1 α ,3 α ,5 α)-

5-[2-[[[[4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-

yl)butyl]amino]carbonyl]oxy]ethyl]-1,3-cyclohexanediyl]bis(2,1-ethanediyloxycarbonylimino-3,1-propanediyl)]bis[ω -methoxy- (9CI)

IT 348098-39-5P

(branched polyalkylene glycols for chemical modifying physiol. active polypeptides)

- RN 348098-39-5 USPATFULL
- CN Poly(oxy-1,2-ethanediyl), α,α' -[[(1 α ,3 α ,5 α)-5-[2-[[[[4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)butyl]amino]carbonyl]oxy]ethyl]-1,3-cyclohexanediyl]bis(2,1-ethanediyloxycarbonylimino-3,1-propanediyl)]bis[ω -methoxy-(9CI)(CA INDEX NAME)

$$-CH_2-O-CH_2-CH_2$$
 O-CH₂ O

```
ANSWER 7 OF 8 USPATFULL on STN
L68
                                                         DUPLICATE 3
AN
       2000:1992 USPATFULL Full-text
ΤI
       Photochemically cross-linked polysaccharide derivatives as supports for
       the chromatographic separation of enantiomers
ΤN
       Francotte, Eric, Nuglar, Switzerland
PA
       Novartis AG, Basel, Switzerland (non-U.S. corporation)
PΙ
       US 6011149
                               20000104
       WO 9627615 19960912
       US 1997-894976
AI
                               19970902 (8)
       WO 1996-EP773
                               19960224
                               19970902 PCT 371 date
                               19970902 PCT 102(e) date
PRAI
      CH 1995-640
                           19950307
DT
       Utility
FS
       Granted
EXNAM Primary Examiner: Kunz, Gary L.
LREP
       Lopez, Gabriel, Kalinchak, Stephen G.
CLMN
       Number of Claims: 21
ECL
       Exemplary Claim: 1
DRWN
      No Drawings
LN.CNT 1064
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AΒ
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The present invention relates to photochemically cross-linked derivatives of general formulae (IA) and (IB), wherein R is a polysaccharide radical in which the OH groups have been esterified as OR' groups or converted into a carbamate (urethane), R.sub.1, and R.sub.2 are each independently lower alkyl or unsubstituted or substituted aryl, X is a direct bond or phenylene, m is 0 or 1, and n is 0 or an integer from 1 to 20, to processes from the preparation

thereof and to the use thereof. The compounds of general formula (IA) and (IB) can be used as supports in the chromatographic separation of enantiomers.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 183149-96-4DP, reaction products with 3,5-dimethylphenyl

isocyanate and crosslinking 183149-96-4P

(preparation of photochem. cross-linked polysaccharide derivs. as supports for chromatog. separation of enantiomers)

RN 183149-96-4 USPATFULL

CN Cellulose, [3-(2,5-dihydro-3,4-dimethyl-2,5-dioxo-1H-pyrrol-1-yl)propyl]carbamate (9CI) (CA INDEX NAME)

CM 1

CRN 183149-95-3 CMF C10 H14 N2 O4

CM 2

CRN 9004-34-6

CMF Unspecified

CCI PMS, MAN

STRUCTURE DIAGRAM IS NOT AVAILABLE

RN 183149-96-4 USPATFULL

CN Cellulose, [3-(2,5-dihydro-3,4-dimethyl-2,5-dioxo-1H-pyrrol-1-yl)propyl]carbamate (9CI) (CA INDEX NAME)

CM 1

CRN 183149-95-3 CMF C10 H14 N2 O4

CM 2

CRN 9004-34-6 CMF Unspecified

CCI PMS, MAN

STRUCTURE DIAGRAM IS NOT AVAILABLE

L68 ANSWER 8 OF 8 USPATFULL on STN 2005:292596 USPATFULL Full-text ΑN ΤI Coatings for medical articles including natural biodegradable polysaccharides IN Chudzik, Stephen J., St. Paul, MN, UNITED STATES Chinn, Joseph A., Shakopee, MN, UNITED STATES Swan, Dale G., St. Louis Park, MN, UNITED STATES Burkstrand, Michael J., Richfield, MN, UNITED STATES PA SurModics, Inc. (U.S. corporation) PΙ US 2005255142 20051117 A1 ΑI US 2005-127351 20050512 (11) Α1 PRAI US 2004-570334P 20040512 (60) US 2004-603707P 20040823 (60) US 2004-613662P 20040928 (60) DΤ Utility FS APPLICATION LREP KAGAN BINDER, PLLC, SUITE 200, MAPLE ISLAND BUILDING, 221 MAIN STREET NORTH, STILLWATER, MN, 55082, US CLMN Number of Claims: 21 ECL Exemplary Claim: 1 No Drawings DRWN LN.CNT 2724 CAS INDEXING IS AVAILABLE FOR THIS PATENT. AΒ Biodegradable coatings that include natural biodegradable polysaccharides are described. The coating is formed from a plurality of natural biodegradable polysaccharides having pendent coupling groups.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 869587-21-3P

(preparation of biodegradable polysaccharide sealant coatings for implantable medical devices)

RN 869587-21-3 USPATFULL

CN Maltodextrin, [5-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)pentyl]carbamate, polymer with 7-methyl-N-[3-[(2-methyl-1-oxo-2-propenyl)amino]propyl]-9-oxo-9H-thioxanthene-3-carboxamide and 2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 244202-41-3 CMF C22 H22 N2 O3 S

CRN 79-06-1 CMF C3 H5 N O

CM 3

CRN 869587-19-9 CMF C10 H14 N2 O4 . x

CMF C10 H14 N2 O4 . \times Unspecified

CDES 8:GD, ESTER

CM 4

CRN 869587-18-8 CMF C10 H14 N2 O4

CM 5

CRN 9050-36-6 CMF Unspecified CCI PMS, MAN

STRUCTURE DIAGRAM IS NOT AVAILABLE

IT 869587-19-9P

(preparation of biodegradable polysaccharide sealant coatings for implantable medical devices)

RN 869587-19-9 USPATFULL

CN Maltodextrin, [5-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)pentyl]carbamate (9CI) (CA INDEX NAME)

CM 1

CRN 869587-18-8 CMF C10 H14 N2 O4

CRN 9050-36-6 CMF Unspecified CCI PMS, MAN

STRUCTURE DIAGRAM IS NOT AVAILABLE

=> => d his

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L2
            162 S E4-E7, E19, E21, E22
               E GROSS/AU
              9 S E3
L3
                E GROSS R/AU
L4
            481 S E3, E11
L_5
              5 S E51, E52
                E MCMANUS/AU
               E MCMANUS S/AU
L6
            138 S E3, E5-E9
               E MC MANUS/AU
                E NEKTAR/PA,CS
L7
             85 S E3-E34
L8
              2 S L1 AND L2-L7
                SEL RN
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L10
             29 S L9 AND NC4/ES
L11
                STR
L12
                SCR 2043
L13
             50 S L11 AND L12 SAM
L14
               STR L11
L15
                STR L11
L16
             50 S L15 AND L12
L17
          16423 S L15 AND L12 FUL
               SAV TEMP L17 RAB751/A
L18
             50 S L11 SAM SUB=L17
L19
           1066 S L11 FUL SUB=L17
                SAV TEMP L19 RAB751A/A
L20
            476 S L19 AND (C2H4O OR C3H6O OR C4H8O OR C5H10O)
L21
            114 S L20 AND S/ELS
L22
                STR L11
              4 S L22 SAM SUB=L19
L23
                STR L22
L24
L25
             43 S L24 SAM SUB=L19
L26
               STR L22
L27
            23 S L26 SAM SUB=L19
L28
            420 S L26 FUL SUB=L19
                SAV L28 TEMP RAB751B/A
L29
                STR L26
L30
             4 S L29 SAM SUB=L28
L31
             49 S L29 FUL SUB=L28
              SAV TEMP L31 RAB751C/A
L32
             31 S L22 FUL SUB=L19
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SAV TEMP L32 RAB751D/A
L33
             0 S L32 AND L31
L34
            17 S L32 AND L28
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L37
             2 S L36 NOT 249621-30-5
L38
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          . 62 S L21 AND L38
L39
L40
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L41
           160 S L38 NOT L39
L42
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L43
             4 S L42 AND L28
             1 S L42 AND L31
L44
L45
             0 S L42 AND L32
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L46
L47
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L48
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L49
L50
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     FILE 'REGISTRY' ENTERED AT 14:46:51 ON 25 SEP 2006
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L52
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     FILE 'HCAPLUS' ENTERED AT 14:47:31 ON 25 SEP 2006
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L54
             2 S L53 AND L1-L8
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L55
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     FILE 'REGISTRY' ENTERED AT 14:48:12 ON 25 SEP 2006
     FILE 'HCAPLUS' ENTERED AT 14:48:51 ON 25 SEP 2006
     FILE 'USPATFULL' ENTERED AT 14:49:09 ON 25 SEP 2006
     FILE 'REGISTRY' ENTERED AT 14:49:54 ON 25 SEP 2006
L56
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             5 S L56 AND (C2H4 OR C10H14N2O4 OR C18H36)
L57
L58
             13 S L56 AND C2H4O NOT L57
               SEL RN 1 9 10 12
L59
             4 S E58-E61
L60
             9 S L57, L59
L61
             48 S L31 NOT L56, L50
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L62
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